THREE RIVERS COMMUNITY-TECHNICAL COLLEGE
COURSE OUTLINE

Course Number/Title: MFG K103 Manufacturing Processes Lab

Lecture 0 hrs Laboratory 2 hrs Credit 1 hrs Contact 2 hrs

Course Description: The laboratory emphasis will be on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will involve set-ups and procedures for milling machines, lathes, grinders, and drill presses. Also the inspection and documentation of processes.

Method: Laboratory reports and experiments

Text: Technology of Machine Tools, Krar

Prerequisites: None Co-Requisites:MFG K102 TCN K105

COURSE TOPICS/CONTENT

	HOURS
1. Introduction to Safety	1
2. Introduction to measurement devices	2
3. Inspection using a variety of methods and instruments	2
4. Documentation of the processes used in producing a machined threaded shaft, sleeve and nut.	2
5. Manufacturing Lab - lathe, vertical milling, cylindrical and surface grinding, broaching, horizontal milling, including the use of a dividing head.	18
TOTAL HOURS	25

Date: February 13, 2008

Prepared By: *Patrick Knowles*

Program Coordinator: *Robert Lantz*

Department Chairperson: *Tony Benoit*

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Measurable Objectives

The student will demonstrate:

1. A continuing appreciation for safe machine operation.
2. Correct operating procedures on the engine lathe, horizontal and vertical milling machines, cylindrical and surface grinders.
3. The ability to lay out dimensions on a workplace.
4. The ability to use precision measurement tools to inspect workpieces.
5. The ability to document processes used in producing a machined threaded shaft, sleeve and nut.